



# ENGINEER UPDATE

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**US Army Corps of Engineers**

**BUILDING STRONG®**



Photo courtesy of Omaha District

Fort Peck Dam on the Missouri River in eastern Montana is the ninth largest dam in the world.

## New study will review Missouri River projects

By Paul Johnston  
Omaha District

For nearly three decades, U.S. Army Corps of Engineers officials on the Missouri River have been buffeted by a cacophony of requests and demands to change the way the big dams on the river are operated.

The consistent response has been that the law lays out specific purposes and USACE does not have the authority to make changes on its own.

Well, the law may change.

In the years following the passage of the 1944 Flood Control Act, six large dams were built by USACE on the Missouri River, three of them among the largest 25 in the world. There were also several dozen tributary dams built and operated by both USACE and the Bureau of Reclamation.

The six main stem dams and reservoirs were authorized for:

- Flood control
- Navigation
- Hydropower
- Irrigation
- Recreation
- Water quality
- Fish and wildlife
- Water supply

The reservoirs have a total storage capac-

ity of 73 million acre feet of water and are operated as a system that captures water during the wet times for release during the dry times.

Twenty years of normal operation followed the dam construction and reservoir filling period. But when drought settled over much of the Missouri River basin in the late 1980s, the inherent conflicts among the authorized purposes became apparent.

The drought illuminated the angst over reservoir access, low navigation flows, reduced power generation, municipal and irrigation intakes left high and dry. There were harsh words about upstream vs. downstream, recreation vs. navigation, river vs. reservoir, us vs. them.

There were public meetings, news reports, editorials, congressional meetings, lawsuits and a 14-year environmental impact statement to update the Master Water Control Manual for the river.

Through it all, the eight authorized purposes remained unchanged.

But the 2009 Omnibus Appropriations Act directed USACE to conduct the first

**Continued on page eight**

## Three receive SecArmy awards

By Bernard Tate  
Headquarters

Three members of the U.S. Army Corps of Engineers have been honored by the Secretary of the Army, John McHugh. The Secretary of the Army Awards ceremony was held April 14 at the Pentagon in Arlington, Va., and a total of 23 Army civilian and military employees received awards.

**Kevin Lynch**, chief of the contract administration branch in Afghanistan Engineer North District received the Decoration for Exceptional Civilian Service for working undercover with the FBI to expose a multi-million-dollar bribery and corruption scheme. His work led to the arrest and imprisonment of former USACE contract administrator Gloria Martinez; her sister Dinorah Cobos, an executive with the Lebanese military construction firm Sima Salazar Group; and Raymond Azar, president of Sima Salazar.

(For Lynch's complete story, see the USACE Web page at [www.usace.army.mil](http://www.usace.army.mil).)

**Dr. Kirankumar Topudurti**, deputy director of the Construction Engineering Research Laboratory in Champaign, Ill., also received the Decoration for Exceptional Civilian Service. Topudurti was awarded for his contributions to environmental engineering, particularly high-voltage electron beam technology and hydrocarbon field measurement technologies.

*High-voltage electron beam technology for treating organic contaminated groundwater.* E-beam technology exposes contaminated water to a beam of high-energy electrons. The elec-

**Continued on page two**

## Insights

# Discipline an important part of life

By Col. Hanson Boney  
Chaplain, U.S. Army Corps of Engineers

*(This is another in a series about the seven Army values.)*

Discipline involves training that corrects, molds or perfects the physical and mental abilities or moral character of an individual or group. It is also control gained by enforcing obedience and order.

Nowhere is discipline more evident than in the military. When one thinks of discipline, he or she is often reminded of the transformation of a civilian into a Soldier, sailor, airman or Marine. Even after basic training, military members are subjected to further rigorous training in the classroom and on the job to develop the skills and knowledge to remain current and effective in their jobs.

We are also reminded of athletes when we think of discipline. A few weeks ago, the world witnessed with amazement and excitement the Winter Olympics, undoubtedly one of the most strenuous competitions that any athlete can face. We know that anyone who competes must commit himself to uncounted hours of practice and training. Even on the days when one does not want to train, he/she is compelled to work out because without discipline any athlete, amateur or professional, stands little chance of winning.

In the ancient world, the Greeks were phenomenal athletes. They were known for wrestling and for throwing the discus and javelin, but their greatest competitions were running, particularly the marathon. The marathon was a 25-mile run over rugged terrain that challenged Greece's best runners. The winner was entitled to a laurel wreath worn around the crown of his head, and to various privileges that

marked him as the greatest athlete.

In the Bible, Paul uses the analogy of the great races. When he says "they all run the race, but only one wins the prize," and "run not as one who beats the air," he is talking about the discipline and commitment that it takes to win. He is challenging Christians to the same kind of dedication in their spiritual lives, as individuals committed to living a life worthy of their Lord.

Paul also uses military images to express the importance of discipline. In Ephesians 6, he tells the church to put on the whole armor of God, having the vigilance and allegiance necessary to carry on the work of Christ. He was preparing them to operate spiritually in a world that expressed little concern for life and the things of God.

Perhaps at the time that Paul wrote these words, he was looking at the tough Roman soldier standing guard outside his prison cell. In Paul's opinion, Christians should be as committed in their spiritual values and to God as the Roman soldier was to his emperor.

Paul admonished the Ephesians to be on guard against the philosophies of the world because the message of Jesus was radically different from what was taught in mainstream Roman society. Paul proclaims in 2 Timothy 2:4 "No warrior entangles himself with the affairs of this life; his job is to please him who has chosen him to be a soldier." Paul may have been thinking of the Roman centurion, a warrior who was often promoted from the ranks and had no interest in the mundane. He was totally dedicated to the profession of arms and was willing to carry out his mission at all costs.

Soldiers and athletes are extreme examples of the discipline needed to succeed, but most of you are not Soldiers or

athletes. There is an aspect of life that transcends profession, and that is self-discipline. Self-discipline refers to bringing one's emotions and actions under control to serve the greater good.

It seems that few people choose the self-discipline option these days. For example, when we look at the financial crisis in our nation, we see that the problem stems from a lack of self-control in personal and business affairs. Living above our means to keep up with the Joneses, being dishonest in commercial interests to cash in on larger bonuses, and cultivating illicit relationships are just a few examples of the lack of self-control.

No society has ever lived long without self-discipline. Even the Romans with their mighty army could not delay their demise. Their culture and society disintegrated because morality and decency became less important and the baser elements took over. There are times when we must say "no" to our primeval instincts so that we can ensure a prosperous, peaceful future.

Do you have self-discipline, or are you living for the moment without regard for the impact you have on the future? The scriptures plainly tell us that if we want to be the best, we cannot expect to achieve it without denying ourselves those things that prohibit success. Like the athletes and soldiers in any era, it is important for us to bring our bodies and minds under control to achieve success and ensure our posterity. Without discipline, you have a confused present and an unsure future.

*(The opinions in this article are those of the writer and do not reflect the official policy or position of the U.S. Army Corps of Engineers, the Department of the Army, the Department of Defense, or the U.S. government.)*

## Secretary of the Army awards

Continued from page one

trons react with the water to form hydroxyl and hydrogen radicals that destroy organic contaminants. Topurdurti's research advanced the science behind e-beam technology, which improved system designs that enhance the destruction of organic contamination in groundwater.

*Field measurement technologies for petroleum hydrocarbons in soil.* Hydrocarbon contamination is caused by oil spills at petroleum refineries, service stations, petroleum transport vessels, and other places where petroleum is used. Topurdurti's research evaluated seven technologies to give engineers the right tools for characterizing thousands of contaminated sites, which aids rapid, cost-effective cleanup.

*Gwendolyn Crawford*, the equal employment opportunity manager of Savannah District, received the Secretary of the Army Award for Outstanding Achievement in Equal Employment Opportunity. Under



Photos by F.T. Eyre, ACE-IT

John McHugh, Secretary of the Army, presents awards to (from left) Kevin Lynch of Afghanistan Engineer District North, Dr. Kirankumar Topurdurti of the Construction Engineering Research Laboratory, and Gwendolyn Crawford of Savannah District.

der Crawford's leadership, the EEO Office has become a center of expertise regionally and in USACE. Among other accomplishments, the district's plan for Equal Employment Opportunity Commission Management Directive 175 is a best-practice model on Microsoft Office SharePoint, the

USACE Web-based knowledge management environment.

In 2009, the district received four national-level EEO awards, including the Black Engineer of the Year Award in the Most Promising Engineer and Scientist category.

Savannah District continues to have a low EEO complaint rate, and the office processes complaints quickly with an emphasis on early resolution. Crawford initiated an alternate dispute resolution program that facilitates early neutral, yet effective informal resolution of disputes.

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Commander, USACE.....Lt. Gen. Robert L. Van Antwerp  
Chief, Public Affairs .....W. Curry Graham  
Editor .....Bernard W. Tate



# USACE, Coast Guard hold 1st talks

By Bernard Tate  
Headquarters

For the first time, the senior leadership of the U.S. Army Corps of Engineers and the U.S. Coast Guard met to discuss missions that are common to both services. The meeting took place April 15 at the Coast Guard headquarters in Washington, D.C.

"USACE and the Coast Guard have worked closely more and more since Sept. 11, 2001, and Hurricane Katrina, and we have overlapping authorities in rivers and harbors," said Lt. Col. Pete Helmlinger, the assistant director of civil works. "These talks were to work more efficiently together where we have mutually supporting missions, especially in navigation and disaster response."

The agencies agreed that these talks will become an annual event, next year hosted by USACE. A joint Coast Guard/USACE message to all personnel will be released shortly highlighting the interagency relationship.

"The Coast Guard-USACE staff talks



Photo by PA1 Mike Lutz, Coast Guard

**Lt. Gen. Robert Van Antwerp, the chief of engineers, reacts to a humorous remark by Adm. Thad Allen, the commandant of the Coast Guard.**

were modeled after the bi-lateral warfighter talks routinely held between the Army and our brother services," Helmlinger added. "The Coast Guard has talked with the Na-

tional Guard Bureau, but not directly with the Army. So this was the first time an Army command has had staff talks with the Coast Guard."

Adm. Thad Allen, commandant of the Coast Guard, said, "I've been dreaming of this for 10 years," since his experience working with USACE in the field and after Hurricane Katrina.

Besides Allen, the senior leadership of both organizations attended, including Lt. Gen. Robert Van Antwerp, the chief of engineers; Maj. Gen. Merdith "Bo" Temple, the deputy commanding general; and Vice Adm. David Pekoske, the vice commandant of the Coast Guard.

"We already have outstanding relationships in the field between the Coast Guard's port commanders and the Corps' district engineers," said Rear Adm. Kevin Cook, director for prevention policy. "What we're trying to do is institutionalize those relations as policy so we can maximize our ability to deliver services to the public in a whole-of-government approach."

"We're building a great team," Van Antwerp said. "This will move the ball forward and bring together the strength of these two organizations."

# West coast earthquake exercise features deployable ops vehicles

Article and Photo  
By Warren Byrd  
Sacramento District

The magnitude 7.2 earthquake that rocked Southern California and northern Mexico on April 4 underscored the importance of disaster preparedness and the need for a rapid, effective emergency response following such an event.

From March 30 to April 2, South Pacific Division conducted an emergency response exercise at the Bay Model in Sausalito, Calif. The scenario was an earthquake in the San Francisco Bay area. More than 100 employees from division headquarters and the San Francisco and Sacramento districts participated in the exercise, which was designed to train those with limited disaster experience in providing efficient and effective response during disasters while operating from a remote location.

The exercise featured the Deployable Tactical Operations System (DTOS), a fleet of vehicles and trailers designed to deploy to disaster areas and equipped to function as self-contained operations centers.

Besides giving division employees a chance to rehearse for disasters and to test their proficiency, the exercise allowed them to familiarize with the DTOS in a real-world environment in case the division headquarters must relocate following an earthquake.

"Many of our Corps of Engineers employees have deployed to Iraq, Haiti, and Afghanistan, so they understand those operations," said Col. Scott Donahue, South Pacific Division commander. "But many have not deployed, so we wanted to give them an understanding of the Deployable Tactical Operations Centers and their equipment. This gave them a chance to participate for a couple of hours, plug in their work stations, work on their laptop, conduct the teleconferences, and do all the things they normally do at work, but in a location they aren't used to."



**Col. Janice Dombi, deputy commander of South Pacific Division, works at her laptop in a Deployable Tactical Operations Center trailer during the emergency response exercise.**

A DTOS employs the Deployable Tactical Operations Centers, which form the command-and-control hub for USACE disaster operations. Nationally, there are three DTOSs, one in Sacramento District and two in Mobile District.

Each DTOS includes two mobile Emergency Tactical Operations Centers in trailers and one emergency command-and-control vehicle. The trailers have workspace, 21 computers on network, communication systems, and can be manned by up to 38 personnel.

The command-and-control vehicles resemble RVs and can be driven to the disaster area. Each one has its own computer system, work stations, stand-alone generator and satellite communication capability.

Each DTOS set can be deployed within 36 hours. With fax, phone, internet, GPS, photocopiers and more, a DTOS provides complete office facilities. In short, it helps emergency response agencies communicate faster and more ef-

fectively to get life sustenance essentials such as water, food and shelter to earthquake victims.

Moe Adams, team leader of Sacramento District's DTOS and an 11-year emergency response veteran, led the DTOS team by convoy from the district's Bryte Yard facility on the exercise's first day. The team, which has six hours from notification to assembly to departure, arrived in Sausalito, positioned the DTOS trailers, established communications and power, and the exercise began the next morning. The DTOS itself is always in a ready state and prepared to deploy.

Donahue said that the exercise met its objectives, which was to give employees a dose of an emergency operations environment.

"Our focus was people, procedures and preparedness," Donahue said. "We focused on improving preparedness and readiness. We're training, educating and developing the professionals who work in our headquarters at San Francisco who don't always get a chance to participate in emergency management situations. We're validating our procedures for emergency response. And it's all about readiness and responding to either a natural disaster or any type of all-hazard contingency in our 10-state region."

Gary Fong, emergency management specialist for Sacramento District, said a DTOS is a critical asset if an earthquake should strike, because it provides a tactical operations and communications platform for first responders where there are no available facilities or communications to support response operations.

Fong said Sept. 11, 2001, was a textbook example of how the DTOS functions.

"The DTOS system and centers were used at Ground Zero of the World Trade Center and served as the nerve centers for the Fire Department of New York," Fong said. "For weeks, they were the forward command centers for the FDNY to work in communications and logistics support. The DTOS were the only communications in a sea of destruction and confusion at the World Trade Center."



# Prime power Soldiers have unique re-up

Reenlisting for another tour of duty in the Army is a milestone in any Soldier's career. Although the oath of enlistment is the same for all, the circumstances of the re-enlistment can often be quite creative. On March 9, two Soldiers in the 249<sup>th</sup> Engineer Battalion (Prime Power) reenlisted 40 feet in the air.

Staff Sgt. Rustin Owen and Staff Sgt. William Test are both members of B Company. Both hold the 21P (prime power specialist) military occupation specialty, and both are experienced electrical linemen. So they both climbed 40-foot utility poles to recite the oath of reenlistment.

The oath was administered by Capt. Nicole Clark, the B Company commander, who was elevated to their level in a bucket truck. The Soldiers of B Company stood in formation to witness the event on Pike Field at Fort Bragg, N.C.

"I'm proud to have reenlisted to continue my service to my country, the U.S. Army Corps of Engineers and the 249<sup>th</sup> Engineer Battalion," Owen said. "Reenlisting on a

utility pole 40 feet high alongside my good friend and battle buddy, Staff Sgt. Test, was great. I'm glad we had the opportunity to do this together and show everyone the skills we have acquired in Bravo Company."

Test feels the same way.

"Being in the 249<sup>th</sup> Engineer Battalion has afforded me the opportunity to gain skills that I would not have otherwise had," Test said. "I've always been proud to be a lineman in the 249<sup>th</sup>. It was a great day when Russ and I were able to reenlist atop a utility pole with all my 21P brothers supporting us. I look forward to continuing my service as an NCO and prime power specialist."

The officers in the 249<sup>th</sup> value Test and Owens as well.

"Both Staff Sgt. Test and Staff Sgt. Owen are outstanding Soldiers," Clark said. "It was a great honor and pleasure to participate in this event. It's always a great day in the Army when we can retain Soldiers of their caliber. They both contribute immensely to Bravo Company's many successes. They will be missed."



Photo courtesy of 249<sup>th</sup> Engineer Battalion (Prime Power)

**Staff Sgt. Rustin Owen and Staff Sgt. William Test finish hanging an American flag before re-enlisting in the Army on 40-foot-tall utility poles. Capt. Nicole Clark, B Company commander, administered the oath while standing in a bucket truck. Staff Sgt. James Bohms, the bucket operator, was in the bucket with her.**

As part of the reenlistment package, Test and Owen will be reassigned to Fort Leonard Wood, Mo.

"Retaining top performers like Staff Sgt. Test and Staff Sgt. Owen is vitally important to the 249<sup>th</sup> Engineer Battalion, especially when employment competition from private industry can drain our prime power ranks," said Lt. Col. Matthew Tyler, commander of the 249<sup>th</sup> Engineer Battalion (Prime Power). "I've definitely seen that if we build the right

Soldier and family programs within the unit, along with good, but not overwhelming, mission operational tempo, we can keep the right Soldiers in the Army. For these two particular NCOs, I'm honored that they will remain in our Army prime power community."

(Capt. Nicole Clark in the 249<sup>th</sup> Engineer Battalion and Bernard Tate in the Public Affairs Office at Headquarters contributed to this article.)

## FEST-A has Cobra Gold mission

By Dino Buchanan  
Honolulu District

During the 28 years of the annual Cobra Gold exercises, U.S., Thai and other Southeast Asian military engineers built humanitarian-related structures (mostly schools and utilities) each year as part of the exercise scenario.

But there has been no follow-up evaluation or inspection of these buildings.

"To my knowledge, no one has revisited these humanitarian civil assistance (HCA) projects to assess their condition," said Maj. Evan Ting, commander of the 565<sup>th</sup> Engineering Detachment, better known as Honolulu District's Forward Engineering Support Team-Advanced (FEST-A). "With an average of five to six structures built during each Cobra Gold, there can be more 100 buildings that haven't been revisited since they were built."

During Cobra Gold 2010, the FEST-A, a group of U.S. Marines from the 3<sup>rd</sup> Civil Affairs Group (3<sup>rd</sup> CAG), Royal Thai Armed Forces engineer and civil affairs officers, interpreters, and a U.S. Army 322<sup>nd</sup> Civil Affairs representative conducted a joint/combined/coalition mission, logging nearly 1,700 miles in northern and central Thailand to the old construction sites. Their mission: conduct infrastructure reconnais-



Photo by Maj. Evan Ting, Honolulu District

**Dave Hinkle, a cartographer with Honolulu District's FEST-A, shows Thai school children how he takes GPS readings with a portable IKE (It Knows Everything) survey device.**

sance, and create the first database of technical information about Cobra Gold HCA projects.

"By creating this database, we can document structural integrity, identify life-safety issues, inventory HCA locations by GPS and store site information in one convenient

location assessable by stakeholders," Ting said. "This can be a great tool for planning future projects or assessments. In addition, the database would document facility usage and verify that buildings are being used for what they were intended. We can also provide our findings and recommendations for

design changes, which can improve the facilities and quality of life for the Thai people.

"One of the FEST's primary missions is infrastructure reconnaissance, so this was great real-world training," Ting added. He said that the assignment gave his FEST their first opportunity to conduct SWEAT-MSO (sewer, water, electricity, academic, trash, medical safety and other) infrastructure survey training while forward-deployed.

"The data we collected using portable IKE (It Knows Everything) survey devices was later uploaded online so that U.S. Army Pacific (USARPAC) and Joint U.S. Military Advisory Group-Thailand (JUSMAG-Thailand) can access the information, which included photographs, GPS coordinates and technical details," Ting said.

Most of the survey information gathering centered on the SWEAT (minus the academic portion, which civil affairs surveyed) and other categories, assessing the projects using a green, amber, red and black grading scale. The group convoyed over a large swath of scenic Thai landscape from near the Burma border in the north to southeast Thailand near the Cambodian border, all in one week.

"The trip to one of our first sites had us driving from Chiang Mai in northern Thai-

**Continued on next page**

# 'We all need to be good stewards'

By Bernard Tate  
Headquarters

The two people in any command with the most on their minds are the commander and the command sergeant major. This quarter, saving money and innovative ways to carry out the command's missions were uppermost in the mind of Command Sgt. Maj. Michael Buxbaum.

"For this quarter's article I'd like to get folks thinking about how we can be more fiscally responsible and energy efficient in the day-to-day business of running the U.S. Army Corps of Engineers," said Buxbaum, the command sergeant major of USACE. "We all need to be good stewards of the taxpayer's money and ensure that we spend it wisely. Fiscal responsibility needs to be something that we *all* think about, not just something from the chief of engineers' office, but all the way down to our newest USACE employee. It all comes down to getting the best bang for the taxpayers' buck."

Buxbaum sees evidence of this good stewardship during his travels across USACE.

"During my recent visit to Europe District, they were looking at ways to get a better product for our money, and they're doing it through their project design work," Buxbaum said. "In one of our buildings they're using a different kind type of glass with a higher energy efficiency rating. They're us-



Photo by Justin Ward, Europe District

**Command Sgt. Maj. Michael Buxbaum (right) looks at an \$8.6 million renovation of a historic building at Kleber Kaserne.**

ing more efficient lighting with photo-cells that turn off the lights when the rooms are unoccupied.

"More and more of our facilities are using these types of technology to not only save on the utility bills, but to be more efficient overall," Buxbaum said. "We've always built gorgeous, state-of-the-art facilities, and now we're making them more energy efficient as well. If you visit any of our facilities today, they'll see that they're being built to an LEED (Leadership in Energy and Environ-

mental Design) silver design rating.

"Our vehicle fleet is another example of us becoming more energy efficient," Buxbaum said. "A lot of our vehicle fleets are now flex-fuels or hybrids. Those are just a few of the efficiency techniques I'm seeing in the field."

"While I was at the National Training Center, the topic of energy efficiency came up," Buxbaum added. "The NTC is currently looking at ways to reduce their energy usage by 30 percent, or more if possible. They're looking at wind, geothermal and solar power as possible options, and they're looking to us for advice on how to get there."

Energy saving and excellent design are not the only innovations that Buxbaum has seen this quarter.

"While I was at the NTC I visited our 59th Forward Engineer Support Team-A (FEST-A) from Los Angeles District," he said. "This was my first visit to a FEST-A during a field exercise, so it was interesting to see how they matched up with the brigade combat team (BCT)."

"The nine-man FEST-A team will deploy as an organic part of the BCT," Buxbaum explained. "The brigade commander will now have the organic assets to make an accurate, timely assessment of the towns and cities in his battle space."

"Previously, the BCT had to go to the provisional reconstruction team, who really belonged to the State Department, to have this same assessment completed," Buxbaum said. "Now the BCT commander actually *owns* a FEST team, and that's a huge change. USACE has been working on the FEST team concept for awhile, and now we're finally deploying them."

When Buxbaum visits the field, he doesn't limit his trips to USACE people and facilities.

"I try to visit all Soldiers, not just the engineers," Buxbaum said. "While I was in Europe District, I visited the Landstuhl Regional Medical Center. I spent nearly three hours there."

"You can never say enough about what our

hospital staffs do for our wounded warriors," Buxbaum said. "They see Soldiers who are injured in some of the worst possible ways. The troops are injured in theater, get buddy aid on the battlefield, and then the combat support hospitals stabilize them. Finally, it's off to Landstuhl where the medical staff gets them ready for their journey back to the States to Walter Reed or Brooks Army Medical Center."

"I had the pleasure of having a young Army medical captain take me on my tour of the recovery ward," Buxbaum said. "God love him, he was all over it. He only has the Soldiers for maybe a day or two, but he knew each one's name, the unit they were from, their injuries, how and where they were hurt in theater. I gave him a coin as small token of my appreciation, and to just say thanks for being the great American that he was!"

When any sergeant major visits the field, he is much more than just a tourist. He is an extra set of eyes and ears for his commander, especially to identify and solve problems. Buxbaum does his share of troubleshooting each quarter. Most of it he can't discuss, but "hiring still seems to be taking a long time. There are a lot of very qualified folks out there that we're trying to hire, but it always seems to take awhile."

If I were a private contractor I could interview you today and hire you tomorrow. Not so with federal service," Buxbaum said. "That's OK, but I'd like to see it all happen a little quicker. My hat's off to all our human resource folks for making the system work for us. They're doing one heck of a job as we're trying to bring on upwards of 8,000 new employees in each of the past two years."

"And I promised to put in a plug for our overseas directorates in Germany, Korea, and Japan," Buxbaum added. "They're great places to work, and there's plenty of long-term work there. I'm a little partial because I spent most of my career overseas, and it's a good experience. I think everyone should volunteer for at least one tour overseas."

Although Buxbaum called this "a light quarter," he is making progress toward his goal of visiting every district in USACE.

"I'm down to 18 or 19 districts that I still have to visit," Buxbaum said. "Realistically, I have until August of next year, and I'm going to do it. I promised the chief of engineers that I would visit every one of them."

"Having the unique opportunity to visit all of our districts has been the most rewarding part of my job," Buxbaum said. "I want everyone to know that I'm their voice here at the Headquarters, because everyone needs to understand that we really *do* care."

"That's why I do what I do," Buxbaum said. "My mission is to do what I can to help. Sometimes I can fix a problem and sometimes I can't. But at least they know somebody cares, and to me that's what matters most."

## Cobra Gold

Continued from previous page

land for three hours to Baan Hauxtontong near the Burma border, where we saw people living in straw and timber huts with no electricity or running water," Ting said. "It was very remote."

Overall findings by the engineers proved favorable. Most of the buildings were structurally sound, were being used appropriately, and were generally well maintained. The FEST-A also determined that local Thai users were pleased with the HCA facilities.

"Our team examined technical issues and helped identify what changes could be made to get the structures or sanitation up to acceptable standards," Ting said. "Most of the project sites graded green; they look good considering their age. Bottom line is they're all structurally sound."

"The U.S. forces along with the coalition forces who built these structures did a great job," Ting added. "We identified drainage, ventilation, and electrical issues and made recommendations to the Thai Mobile Development Units (Thai equivalent of civil affairs) for improvements. Some recommendations involved moving electrical outlets to higher levels for the safety of school children, and even adding natural lighting or improving ventilation with larger openings in walls."

As part of the Cobra Gold exercise the FEST-A also supported USARPAC Com-

mand Deputy Chief of Staff, Engineering (DSCENG) on two projects, including an electrical infrastructure survey of Utapao Air Base Red Horse compound.

During Ting's mission briefings to USARPAC DCSENG, Coalition Joint Civil Military Operations Task Force, and JUSMAG-Thailand, everyone agreed that it is necessary to incorporate FEST teams into HCA assessments for future Cobra Gold and other PACOM exercises.

"JUSMAG-Thailand was so pleased with our performance that they said there is a definite need to have this evaluation every year during Cobra Gold," Ting said. "They still have many structures to evaluate."

"Our FEST-A gained valuable field training during Cobra Gold 2010, and also supported a vital priority for the U.S. and Thailand," said Lt. Col. Jon Chytka, Honolulu commander. "They certainly proved their worth as a multi-functional engineer team and great U.S. ambassadors."

Ting said that despite the hectic exercise mission schedule the FEST made significant strides in team building and training.

"Our FEST could not have had a better training opportunity as we created a real product for a real-world need in a short time," he said. "I think it would be difficult to duplicate our team's accomplishment or experience during another mission. The opportunity to help people is very satisfying."





Photos by Todd Plain, Sacramento District

Sacramento District's New Hogan Lake Park headquarters has a new solar electricity system. New Hogan Lake is one of nine district park and dam operations offices to install solar systems, paid for with funds provided by the American Recovery and Reinvestment Act.

## Sacramento parks go solar

By Chris Gray-Garcia  
Sacramento District

Solar electricity systems are being installed at nine Sacramento District park and dam operation offices in California as part of a U.S. Army Corps of Engineers effort to improve the environmental sustainability of its projects.

The systems, paid for with funds provided through the American Recovery and Reinvestment Act of 2009, are expected to provide 41 percent of each office's electricity needs on average, said Phil Holcomb, Sacramento District's Northern Area operations manager.

"All of the district lakes are receiving photovoltaic systems, and it's all being driven by three basic forces," Holcomb said. "About eight years ago, USACE implemented seven environmental operating principles. Principle number one was environmental sustainability. And there are two executive orders (Executive Orders 13423 and 13514) that require all federal agencies to reduce total energy consumption, reduce total greenhouse gases, and to use recycled materials wherever possible.

"By 2015, federal agencies must reduce their energy consumption by 30 percent," Holcomb added. "By adding these photovoltaic systems, we're reducing our energy consumption at the project offices by 41 percent. So that will go a long way toward meeting the overall goal for Sacramento District."

According to Holcomb, the solar panels at New Hogan Lake will not only reduce energy consumption and greenhouse gases by more than 28,000 pounds annually, the same as planting six acres of trees. District wide, the panels will cut carbon emissions by 156,000 pounds annually.

The solar panels are just one of a series of measures Sacramento District park offices have taken to reduce energy consumption.

"We're retrofitting the New Hogan project office with LED lighting," Holcomb said. "That reduces the 40 watts we originally had down to about 15 watts per bulb. In addition, we've replaced our large electric water heater with an instantaneous water heater, which uses energy only when you're actually using the water. Executive Order 13514 also calls for reducing the amount of fuel your fleet vehicles use.

To help accomplish this goal, we've obtained two hybrid electric vehicles at New Hogan."

The \$1.26 million contract to provide and install all of the solar systems was awarded in September to Women's Empowerment Partnership Inc., of Bell Gardens, Calif., an 8(a) designated contractor. The Small Business Administration's 8(a) program helps small disadvantaged businesses compete in the American economy and secure federal contracts.

Installing the system at New Hogan Lake was completed Feb. 26, with all system installations scheduled to be completed by June. Offices at Englebright Lake, Stanislaus River Parks, Lake Isabella Dam, Black Butte Lake, Eastman Lake, Pine Flat Lake, Hensley Lake and Lake Kaweah will also receive solar electricity systems under the contract.

"This project is doing exactly what the stimulus dollars were intended to do," Holcomb said. "It's providing business opportunity to a small, disadvantaged business, and allowing local people to do the solar installation. As a secondary benefit, the federal government is reducing their energy consumption and meeting our sustainability goals. It's a great project for the Corps to be involved in."

### HR Corner

## Senior service college a key to success

By Rich Taylor  
Headquarters

Attending a senior service college (SSC) can be a key success factor in advancing your career. I am a graduate of the U.S. Army War College, and I found that the SSC experience was very valuable.

Having a career plan is essential for advancement. There are many components to your plan, and education is also an important element. Attending a senior service college is a key success factor that should be in any career plan, particularly as your career matures.

Attending a SSC is one of the best life experiences you will have. The relationships last a lifetime. Social ties with your seminar colleagues from other services and countries continue long past graduation, and instructors continue the dialogue of strategic issues via e-mail. In addition, the masters of strategic studies is a diploma you can proudly hang in your office or den.

The SSC experience provides a competitive advantage as

you move into positions of leadership, and you gain the benefit of personal access to a network of leaders and executives that you will encounter in your daily work.

Checking the value of the SSC experience in your career is easily done by asking the question: Have I advanced to positions of leadership? While attending *any* SSC is an experience of a lifetime, I can say that 10 months at the U.S. Army War College in Carlisle, Penn., was valuable to me.

During my post-graduation assignment, a USAWC classmate and I helped organize the new Stability and Reconstruction Division in the Army's G-3 shop.

Subsequently, I had the privilege of leading a division in the Strategy and Integration Office at USACE Headquarters. Currently, I'm part of the team standing up the newest USACE major subordinate command, Transatlantic Division.

Therefore, the SSC experience has been positive for me and one that I would recommend to anyone with a career plan.

If a federal employee wants to attend a senior service col-

lege, he or she:

- Must be a permanent, full-time Army civilian employee for at least three years at application time, and hold the grade of GS 14/15, or National Security Personnel System Pay Band 3. Equivalent positions in the Defense Civilian Intelligence Personnel Management System are also encouraged to apply.
- Must have extensive leadership and supervisory experience with an outstanding performance record.
- Must hold a baccalaureate degree or higher from an accredited institution.
- Must have or be able to obtain a top secret security clearance.
- Must have completed the Civilian Education System advanced course or received equivalency credit.

The suspense for USACE employees to apply for the 2011-12 academic year is June 1. More information on the SSC application process may be found at <http://cpol.army.mil/library/train/catalog/ch02gen.htm>, or call 202-761-5004.

# AROUND THE CORPS



**Col. Jeffrey Knippel, commander of Gulf Region South District, and Command Sgt. Maj. Michael Sangre, the GRS command sergeant major, case the GRS colors.**

## GRS furls flag

Transatlantic Division completed its transformation from three engineer districts in Iraq to one by casing Gulf Region South District's colors during a ceremony March 29 in the Contingency Operating Base Adder Chapel in Tallil.

"Today's ceremony marked the conclusion of the mission for the GRS Headquarters, but in no way ends their mission to support Iraq, the U.S. and Iraqi security forces, and the people of the nine provinces in southern Iraq," said Brig. Gen. Kendall Cox, Transatlantic Division commander.

Cox told the audience that the district completed more than 1,300 projects valued at \$4 billion in the past six years, and currently has 116 projects under construction valued at \$528 million, with a total of more than \$900 million to be completed in the next 12 to 15 months.

With the inactivation of GRS, USACE will have one district in Iraq to finish the reconstruction mission. Gulf Region District is headquartered in Baghdad under the command of Col. Dionysios Anninos.

## Correction

Mike Stewart, an emergency management specialist with Mississippi Valley Division, was co-winner of the USACE 2009 Emergency Manager of the Year Award. Gus Marino, chief of the Emergency Management Office in Galveston District, was the other winner. (*Engineer Update*, January 2010 edition.)

## Zakho Emergency Hospital

A state-of-the-art trauma center became a reality when the northern Iraqi province of Dahuk celebrated the opening of the Zakho Emergency Hospital.

The \$2.6 million, 40-bed facility includes surgical wards, X-ray and MRI facilities, an interior parking lot, a security fence, a fully staffed security building and a power plant building to provide full-time electric power.

In addition, the Kurdistan Ministry of Finance provided 1.2 billion Iraqi dinars (about \$1 million U.S. dollars) for medical equipment and furniture.

Zakho is the major border crossing between northern Iraq and Turkey. Hundreds of tractor-trailers pass through the mountainous roads every day, which results in accidents and trauma injuries. These injuries account for a large percentage of the medical care in Zakhu. Without this facility, trauma patients have to be transported 56 kilometers (347 miles) to a crowded hospital in Dahuk.

## Oath of office

Master Sgt. Peter Stabile took the oath of office as superintendent of highways for Woodbury, N.Y., despite being more than 6,700 miles out of town. Stabile is the noncommissioned officer in charge of the USACE office at Provincial Reconstruction Team Feyzabad in northern Afghanistan.

1st Lt. Matthew Benasuly, a member of the legal support team at Camp Spann in Mazer-e-Sharif, administered the oath. This met provisions of New York state law that allows commissioned military officers to swear in deployed service-members. Stabile's USACE colleagues were witnesses.

Stabile will spend the first 10 months of his fourth two-year term in Afghanistan. He designated town supervisor John Burke as acting superintendent of the town's highways department, and assigned foreman Johnny Jones to handle the day-to-day responsibilities.

The department's 13 employees are responsible for plowing snow along 48 miles of roads during winter, and collecting bagged leaves and clearing tree limbs along 60 miles of roads during summer.

"I can be here with a clear conscious knowing that they are taking care of things," Stabile said after taking the oath in front of a U.S. flag in the Corps' office. He stays in regular contact with town officials through e-mail.

## Border Patrol station

The Border Patrol has a new station in Fort Hancock, Texas, thanks to Albuquerque and Fort Worth districts. The 44,000-square-foot facility can serve more than 200 agents. It replaces a 1,500-square-foot building that would have been tight for four people, and instead served 150.

The new facility provides a crucial solution for a Fort Hancock station that was established in 1925, but now is responsible for protecting 2,700 square miles of open Texas countryside and 40 miles of the international border along the Rio Grande River.

"I've never seen morale higher," said Victor Manjarrez, Jr., El Paso Sector chief patrol agent. "I had been asking the Fort Hancock Station to make do with the bare minimum."

The new station has a 28,750-square-foot administrative, processing and detention center, and a 15,500-square-foot vehicle/maintenance facility, all situated on 15.5 acres a stone's throw from Mexico. The new station also includes a seizure lot, dog kennels, fueling stations, a 100-by-100-foot helipad, a wash rack, and a mat room and training area for agents.

## Boating safety award

On April 14, Maj. Gen. Don Riley, former deputy commanding general of USACE, received the National Safe Boating Council's Horizon Award for his actions to implement a life jacket mandatory-wear policy study on Corps waters. Riley is currently serving in Afghanistan, so his wife Roslyn accepted the award on his behalf. It was presented at the annual National Safe Boating Council and National Association of State Boating Law Administrators' congressional reception in Washington, D.C.

The Horizon Award is presented to individuals, organizations, professionals and volunteers for their work to advance boating safety.

Statistics show that more than 90 percent of all drowning victims on Corps waters were not wearing a life jacket.

In 2008, Riley approved a pilot study at selected Vicksburg District lakes in Mississippi to test the feasibility of a mandatory life jacket wear policy, and to monitor the effects of a Pittsburgh District life jacket policy implemented for small watercraft in 1990.

The three-year study is ongoing, but early results indicate that the life jacket wear rate on the Mississippi test lakes is more than 78 percent for all boaters, well above the national average of six percent.

"To mandate the use of life jackets on Corps lakes was an aggressive effort and took a lot of energy by our park rangers and their leaders," Riley said. "Thanks to them for their persistence in doing what we feel is absolutely the right thing to do."

## Historical reenactment

Sacramento District's Stanislaus River Parks was the setting for three days of Civil War reenactment activities hosted by the American Civil War Association of Northern and Central California March 19-21.

With the historic buildings the park staff maintains, including the longest covered bridge west of the Mississippi River built in 1863; and the ruins of a grist mill and power house dating from the same period, the park is an ideal place to stage a reenactment, said ACWA treasurer Bob Preston. The ACWA has hosted reenactments at Stanislaus since 1994.

## Making waves

Each year, thousands of lives are lost in tropical storms. People living on islands such as Hawaii or Guam are especially vulnerable. Researchers at the Coastal and Hydraulics Laboratory are developing ways to save lives before they are threatened.

The lab's scientists have recreated part of Guam's reefs right down to the square foot to study the effect of waves on coastal flooding. The Surge and Wave Island Modeling Studies (SWIMS) research program uses specially-cut acrylic tile and wave-making machines to model waves on island reefs.

Hurricane and typhoon waves contribute a much larger portion of flooding on steep-slope islands compared to the more gently sloping U.S. coast. The transformation of waves over the reefs is the key to understanding the flooding.

"We have methods to calculate wave run-up and height on the mainland," said Dr. Ernest Smith, project manager. "But for islands, our computer models have not been well tested and our data is sparse. This laboratory study will give us more accurate data about waves over island reefs, and that can help officials develop better evacuation plans, especially for cities like Honolulu where there is a large population in a vulnerable area."

Using precise survey data collected from a particular coastline, researchers can reconstruct it in a 1:50 scale model. These data are used to custom-make acrylic tiles. These tiles are placed in a wave basin with a wave machine and sensors to record how waves of different heights and periods will impact a coastline.

While the current model is an idealized recreation based on a reef on the coast of Guam, researchers can recreate models of any coastline anywhere in the world.

"These data will lead to improved predictions of storm inundation, which will give emergency managers better information and options, and in the end save lives."



## Great Wonders of USACE

# Futuristic building honors past

Arguably the most technologically advanced higher education facility in the U.S., the Lewis and Clark Center at Fort Leavenworth, Kan., is the home of the U.S. Army Command and General Staff College. The school educates and develops leaders for the full spectrum of military operations, acts as the lead agent for the Army's leader development program, and advances in the art and science of the profession of arms.

The four-story, 416,000-square-foot steel frame and masonry building has 96 networked classrooms equipped for video teleconference. In addition, it contains a variety of specialized computer and language labs, 2,000-seat and 750-seat auditoriums, a 100-seat briefing room, and smaller meeting areas and SCIF (sensitive compartmented information facility) spaces. Each of these rooms has advanced audiovisual and worldwide communication links.

The facility also features 400 staff and faculty offices, student lounges, a bookstore, a barber/beauty shop and a food service court.

The Lewis and Clark Center represents a giant leap forward in classroom functionality and innovative application of technology to support the education mission. A major focus of the architecture-engineering design was establishing robust interoperability that connects instructor and student, connects classrooms inside the building, and connects classrooms with the outside world.

Raised access flooring and flexible wall systems provide life-cycle cost savings by allowing quick expansion and reconfiguration of classroom space.

Touch-screen instructor modules and advanced video and network systems were important innovations. They permit fully synchronous student-to-instructor electronic linkages that stimulate the learning process and are critical for improving man-in-the-loop battle command and control systems.

The Video Network Operations Center (NOC) supports the day-to-day operations of the building-wide audiovisual automation system. It provides two-way, live audio or audio/video connections to each classroom for real-time technical support.

The Video NOC also assists the instructor with classroom control system functions, schedules local or remote connections, sets up live broadcasts with other interactive locations, streams live or taped video programs, and provides remote



Photo courtesy of Kansas City District

**The Lewis and Clark Center at Fort Leavenworth, Kan., is the home of the U.S. Army Command and General Staff College. It is arguably the most technologically advanced school in the U.S.**

diagnostics and system upgrades.

In addition, the Lewis and Clark Center was sited to avoid interfering with a stream, and careful construction limited perimeter disturbance. The facility has the smallest footprint possible to comply with the National Historic Landmark District criteria.

Environmentally, the center has demonstrated the Army's commitment to implementing sustainable design principles. The building's energy use was reduced 14 percent compared to industry standard baselines by an extremely efficient heat pump mechanical system, energy efficient windows, and increased thermal performance of the exterior closure. Building energy usage is metered, and carbon dioxide levels are monitored in the auditorium.

Specifications for construction waste management were employed, along with integrating the new facility into Fort Leavenworth's recycling collection system. The post also provides shuttle transport and bike lockup.

Human aesthetics were not neglected in favor of hard-wired engineering values. Vast amounts of historic memorabilia were relocated from the previous Command and General Staff College building to the Lewis and Clark Center, including historic stained glass windows that were refurbished and incorporated into the new window systems.

The center is situated within the historic area of Fort Leavenworth.

Accordingly, exterior building materials and forms were selected to blend with the surrounding historical architecture. The brick and stone provide a durable, low-maintenance façade that evokes the permanence and elegance of the post.

The interior architecture creates an open, airy, sophisticated space that respects and speaks to the history of the Command & General Staff College. Windows flanking the corridors provide abundant natural light and views of the surrounding campus.

Several existing monuments were relocated into the site design to present them in a manner befitting their honor.

Behind the aesthetics lies the state-of-the-art communications that are seamlessly integrated into the interior architecture and that are essential to the function of this important military education facility.

The project was delivered using a whole building, integrated design approach in which the construction contractor was on-board during the design. Partnering workshops and technical exchanges were held throughout the project phases, permitting regular validation of the design against cost, quality-of-life, flexibility, efficiency, environmental impact, productivity, creativity, and education excellence objectives.

*(The staff of the Kansas City District Public Affairs Office provided this article.)*

## Missouri River review

**Continued from page one**

review of the purposes established 65 years ago. The goal of the \$25 million, multi-year study is to determine if changes in the original purposes and existing federal water resource infrastructure managed by USACE and Bureau of Reclamation may be warranted.

From the initiation of the Missouri River Authorized Purposes Study in October 2009, there has been a communications challenge to define what the study is *not*. It is *not* a continuation of the Master Manual environmental impact statement that looked at how the dams and reservoirs are operated. It is also *not* part of the several habitat recovery and restoration efforts now underway along the length of the river.

The study *is* about what the projects are operated *for*, *not* *how* they are operated.

The study team is made up of members from both Omaha and Kansas City districts, with co-leaders Mark Harberg from Omaha and Lamar McKissack from Kansas City District. The full range of technical disciplines is represented.

"We are really collaborating with the 28 tribes in the basin, along with the Bureau of Reclamation and other federal agencies, states and a wide range of stakeholders within the basin and the Mississippi Valley Division down to New Orleans," Harberg said. "There are a lot of moving parts to this study and we want to make it as transparent and accessible as possible."

Tribal meetings and facilitated public focus group sessions were conducted from Billings, Mont., to New Orleans from November to February to begin collecting information about interests and concerns, likes and dislikes, wants and needs, and how to best structure public involvement during the study.

The public sessions were attended by several hundred people representing the full range of interests, including tribes, navigators, utilities, environmentalists, fishermen, boaters, irrigators and officials from all levels of government.

Scoping meetings to determine the size and shape of technical studies will be conducted at 30 locations throughout

the Missouri River basin and in several cities along the Mississippi River. There will also be tribal scoping meetings at 11 targeted locations for a total of 41 meetings.

There will also be an open house format to allow attendees to come and go on their own schedules and meet and talk directly with study team members. Comments will be collected in writing, by a court reporter or via the Internet.

"We will use the results of the various technical studies along with the comments we receive to evaluate an array of alternatives and determine if changes to the authorized purposes are warranted," McKissack said. "Alternatives will be evaluated on five criteria -- national economic development, regional economic development, environmental quality, social effects and public safety."

The work of the study team will culminate in a comprehensive feasibility report with an anticipated integrated environmental impact statement, and the chief of engineers will make a report to Congress. It is the prerogative of Congress to make any changes to the 1944 law.